IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended)A ~~storage system constructed by communicably connecting~~ having a first ~~storage~~ controller of a virtualization system and a second ~~storage~~ controller of a disk array system, said second controller being coupled to said first controller, said system ~~and~~ performing data processing according to a request from a host device,

wherein said first ~~storage~~ controller ~~has~~ conducts mapping such that relations between at least one ~~or more~~first logical ~~units~~ unit accessed by said host device~~,~~ and at least one ~~or more~~ intermediate logical device are set ~~memory hierarchies arranged so as to connect this logical unit and at least one or more memory devices~~, ~~and~~

~~at least one of said intermediate memory hierarchies is connected to a memory device arranged in said second storage controller~~wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization function of said first controller,

wherein said first logical unit is related to a first logical unit number (LUN), and

wherein said second logical unit is related to a second LUN.

2. (currently amended)A system having a first controller of a virtualization system, ~~memory control device communicably connected to a host device~~ and a second ~~storage~~ controller of a disk array system, said

second controller being coupled to said first controller, said system ~~and~~ performing data processing according to a request from a ~~said~~ host device, ~~and~~ said first controller comprising:

a memory having stored therein information which maps relations between at least one ~~or more~~first logical ~~units~~ unit accessed by said host device~~;~~ and at least one ~~or more~~ intermediate logical device,~~memory hierarchies arranged so as to connect said logical unit and at least one or more memory devices;~~

~~wherein at least one of said intermediate memory hierarchies is connected to the memory device arranged in said second storage controller~~

wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization function of said first controller,

wherein said first logical unit is related to a first logical unit number (LUN), and

wherein said second logical unit is related to a second LUN.

3. (currently amended) The system ~~memory control device~~ according to claim 2, wherein said intermediate logical device ~~memory hierarchy~~ is constructed by arranging at least one level of a ~~or more~~ first memory ~~hierarchies set on said memory device~~, and at least one level of a ~~or more~~ second memory ~~hierarchies~~ hierarchically arranged at a level above the at least one level of ~~set on this~~ first memory ~~hierarchy~~, and

wherein a ~~the~~ memory device ~~arranged~~ in said second ~~storage~~ controller is mapped to ~~said~~ the at least one level of first memory ~~hierarchy~~.

4. (currently amended) The system ~~memory control device~~ according to claim 2, wherein said first controller ~~the memory control device~~ further comprises:

a plurality of ~~plural~~ said logical units which can ~~able to~~ be accessed from said host device through plural paths different from each other, ~~and~~

wherein each of said logical units is related ~~connected~~ to each of said at least one intermediate device~~memory hierarchies~~.

5. (currently amended)A storage controller communicably connected to a host device and another storage controller and performing data processing according to a request from said host device, said storage controller comprising:

at least one logical unit accessed by said host device;

at least one intermediate memory hierarchy arranged to connect said at least one logical unit and at least one memory device;

wherein at least one of said at least one intermediate memory hierarchy is connected to the at least one memory device which is arranged in said another storage controller~~The memory control device according to claim 2,~~; and

~~wherein the memory control device further comprises~~ path information obtaining means for obtaining path information to said at least one memory device arranged in said another ~~second~~ storage controller, ~~and~~

wherein said each path information is recognized as path information to the same memory device when said obtained path information exists in ~~the~~ plural.

6. (currently amended) A control method of a system having a first controller of a virtualization system and a second controller of a disk array system, said second controller being coupled to said first controller, said control method performing data processing according to a request from a host device, comprising the steps of:

wherein said first controller conducts mapping such that relations between at least one first logical unit accessed by said host device and at least one intermediate logical device are set,

wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization function of said first controller,

wherein said first logical unit is related to a first logical unit number (LUN), and

wherein said second logical unit is related to a second LUN,

~~memory control device communicably connected to a host device and a second storage controller and performing data processing according to a request from said host device, and including:~~

~~a step for~~ obtaining path information to a memory device arranged in said second ~~storage~~ controller; and

~~a step for~~ mapping said obtained path information to said ~~an~~ intermediate logical device ~~memory hierarchy~~ connected to a~~said at least one~~ logical unit accessed by said host device.

7. (currently amended) A computer program, stored on a storage medium, for performing data processing according to a request from a host

device in a system having a first controller of a virtualization system and a second controller of a disk array system, said second controller being coupled to said first controller, said computer program when executed causes said system to perform the steps of:

wherein said first controller conducts mapping such that relations between at least one first logical unit accessed by said host device and at least one intermediate logical device are set,

wherein said intermediate logical device is related to a second logical unit of said second controller by a virtualization function of said first controller,

wherein said first logical unit is related to a first logical unit number (LUN), and

wherein said second logical unit is related to a second LUN, ~~for setting a memory device arranged in a second storage controller to a memory control device as an internal volume, and making the computer execute:~~

~~a step for~~ obtaining path information to the memory device arranged in said second ~~storage~~ controller; and

~~a step for~~ mapping said obtained path information to an intermediate logical device ~~memory hierarchy~~ connected to ~~a~~said at least one logical unit accessed by said host device.

Claims 8 and 9 (canceled).